

PATENTS

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02/05/02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Eugene Lukanidin

**Examiner:** Unassigned

**Serial No.:** To Be Assigned

**Art Unit:** Unassigned

**Filed:** Herewith

**Docket:** 7879ZYAIIIZY

**For:** DIAGNOSIS OF METASTATIC  
CANCER BY THE MTS-1 GENE

**Dated:** February 5, 2002

Assistant Commissioner for Patents  
Washington, DC 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with the provisions of 37 C.F.R. §§1.97 and 1.98, it is respectfully requested that the following disclosures, which are also listed on the attached form PTO-1449 be made of record in the above-identified case.

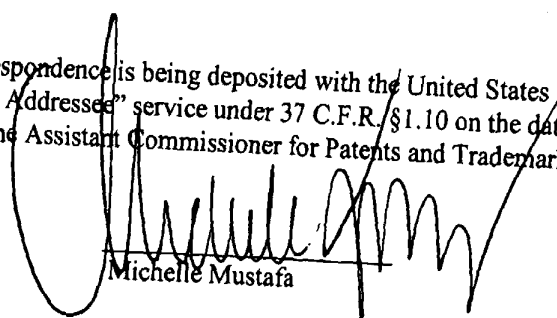
1. Barraclough, et al. (1987) "Molecular Cloning and Sequence of the Gene for p9Ka, a Cultured Myoepithelial Cell Protein with Strong Homology to S-100, a Calcium-binding Protein", J. Mol. Biol. 198:13;
2. Barraclough, et al. (1988) "The Identification of a Normal Rat Gene Located Close to the gene for the Potential Myoepithelial Cell Calcium-binding Protein, p9Ka", J. Biol. Chem. 263:14597;

**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

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Dated: February 5, 2002

  
Michelle Mustafa

Form PTO-1449 (REV. 7-80) PATENT AND TRADEMARK OFFICE	U.S. DEPARTMENT OF COMMERCE	Atty. Docket No. 7879ZYAIIIZY	Serial No. To Be Assigned
<b>LIST OF PRIOR ART CITED BY APPLICANT.</b>  (Use several sheets if necessary)		Applicant Eugene Lukanidin	
		Filing Date Herewith	Group Unassigned

PTO  
10/06/98  
10/06/98  
02/05/02

**U.S. PATENT DOCUMENTS**

EXAM. INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (if appropriate)
BF	AA	5,798,257	8/25/98	Zain, et al.			
	AB						
	AC						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AA							
	AL							
	AM							

**OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc)**

BF	AP	Barracough, et al. (1987) "Molecular Cloning and Sequence of the Gene for p9Ka, a Cultured Myoepithelial Cell Protein with Strong Homology to S-100, a Calcium-binding Protein", <u>J. Mol. Biol.</u> 198:13
	AQ	Barracough, et al. (1988) "The Identification of a Normal Rat Gene Located Close to the gene for the Potential Myoepithelial Cell Calcium-binding Protein, p9Ka", <u>J. Biol. Chem.</u> 263:14597
	AR	Barracough, et al. (1990) "Calcium-ion Binding by the Potential Calcium-ion-binding Protein, p9Ka", <u>Biochem. and Biophys. Res. Comm.</u> 169:660
	AS	Baudier, et al. (1986) "Ions Binding to S100 Proteins", <u>J. Biol. Chem.</u> 261:8204-8212
	AT	Ebraldize, et al. (1989) "Isolation and Characterization of a Gene Specifically Expressed in Different Metastatic Cells and Whose Deduced Gene Product has a High Degree of Homology to a Ca <sup>2+</sup> -binding Protein Family", <u>Genes &amp; Devel.</u> 3:1086

EXAMINER <u>Brandon Feltner</u>	DATE CONSIDERED <u>9/1/01</u>
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449 (REV. 7-80) PATENT AND TRADEMARK OFFICE		U.S. DEPARTMENT OF COMMERCE		Atty. Docket No. 7879ZYAIIIZY		Serial No. To Be Assigned	
<b>LIST OF PRIOR ART CITED BY APPLICANT</b>  (Use several sheets if necessary)				Applicant Eugene Lukanidin			
				Filing Date Herewith		Group Unassigned	
<b>U.S. PATENT DOCUMENTS</b>							
Exam. Initial		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (if appropriate)
	AA						
	AB						
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
	AK						
	AL						
<b>OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	AU	Tulchinsky, et al. (1990) "Structure of Gene <u>mts-1</u> , Transcribed in Metastatic Mouse Tumor Cells", <u>Gene</u> 87:219					
	AV	Ambartsumian, N.S., et al. (1996) "Metastasis of a mammary carcinomas in GRS/A hybrid mice transgenic for the mts 1 gene", <u>Oncogene</u> 13: 1621-1630					
	AW	Baudier, J., et al. (1992) "Characterization of the tumor suppressor protein p53 as a protein kinase C substrate and a S100b-binding protein", <u>Proc. Natl Acad. Sci USA</u> 89: 11627-11631;					
BR	AX	Klingelhöfer, J., et al. (1997) "Expression of the Metastasis-Associated mts1 Gene During Mouse Development", <u>Development Dynamics</u> 210:87-95					
	AY	Wilder, P.T., et al. (1996) (Abstract) "S100b Inhibition of PKC $\alpha$ And PKM Phosphorylation of a Synthetic Peptide Derived From p53.", <u>Biophys.J</u> 70:A62					
	AZ	Kriaievskaja, M., et al. (1998) "Metastasis-associated Mts1 (S100A4) Protein Modulates Protein Kinase C Phosphorylation of the Heavy Chain of Nonmuscle Myosin", <u>The Journal of Biological Chemistry</u> 273(16):9852-9856					
EXAMINER <i>Brian Felt</i>				DATE CONSIDERED <i>5/9/01</i>			
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

3. Barraclough, et al. (1990) "Calcium-ion Binding by the Potential Calcium-ion-binding Protein, p9Ka", Biochem. and Biophys. Res. Comm. 169:660;
4. Baudier, et al. (1986) "Ions Binding to S100 Proteins", J. Biol. Chem. 261:8204-8212;
5. Ebralidze, et al. (1989) "Isolation and Characterization of a Gene Specifically Expressed in Different Metastatic Cells and Whose Deduced Gene Product has a High Degree of Homology to a  $\text{Ca}^{2+}$ -binding Protein Family", Genes & Devel. 3:1086;
6. Goto, et al. (1988) "Cloning of the Sequences Expressed Abundantly in Established Cell Lines: Identification of a cDNA Clone Highly Homologous to S-100, a Calcium-binding Protein", J. Biochem. 103:48;
7. Jackson-Grusby, et al. (1987) "A Growth Related mRNA in Cultured Mouse Cells Encodes a Placental Calcium Binding Protein", Nuc. Acids Res. 15:6677;
8. Linzer, et al. (1983) "Growth-related Changes in Specific mRNAs of Cultured Mouse Cells", Proc. Nat'l. Acad. Sci. USA 80:4271;
9. Lukanidin, et al. (1989) "Isolation and Characterization of a New Gene for a  $\text{Ca}^{++}$ -binding Proteins which is Specifically Expressed in Different Metastatic Cells", J. Cellular Biochem. Suppl. 13B:66, Abstract D422;
10. Masiakowski, et al. (1988) "Nerve Growth Factor Induces the Genes for Two Proteins Related to a Family of Calcium-binding Proteins in PC12 Cells", Proc. Nat'l. Acad. Sci. USA 85:1277;
11. Suggs, et al. (1981) "Use of Synthetic oligonucleotides as hybridization probes: Isolation of cloned cDNA sequences for human  $\beta_2$ -microglobulin\*", Proc. Nat'l. Acad. Sci. USA 78:6613;
12. Tulchinsky, et al. (1990) "Structure of Gene mts-1, Transcribed in Metastatic Mouse Tumor Cells", Gene 87:219;
13. U.S. Patent No. 5,798,257, dated 8/25/98;
14. Ambartsumian, N.S., et al. (1996) "Metastasis of mammary carcinomas in GRS/A hybrid mice transgenic for the mts1 gene", Oncogene 13: 1621-1630;
15. Baudier, J., et al. (1992) "Characterization of the tumor suppressor protein p53 as a protein kinase C substrate and a S100b-binding protein", Proc.

Natl Acad. Sci USA 89:11627-11631;

16. Klingelhöfer, J., et al. (1997) "Expression of the Metastasis-Associated mts1 Gene During Mouse Development", Development Dynamics 210:87-95;
17. Wilder, P.T., et al. (1996) (Abstract) "S100 $\beta$  Inhibition of PKC $\alpha$  And PKM Phosphorylation of a Synthetic Peptide Derived From p53.", Biophys.J 70:A62;
18. Wilder, P.T., et al. (1998) "S100B ( $\beta\beta$ ) inhibits the protein kinase C-dependent phosphorylation of a peptide derived from p53 in a Ca<sup>2+</sup> - dependent manner", Protein Science 7:794-798; and
19. Kriajevska, M., et al. (1998) "Metastasis-associated Mts1 (S100A4) Protein Modulates Protein Kinase C Phosphorylation of the Heavy Chain of Nonmuscle Myosin", The Journal of Biological Chemistry 273(16):9852-9856.

Pursuant to 37 C.F.R. §1.98(d), copies of the above-listed publications are not provided, as the references were previously submitted to the Examiner in connection with the parent case, Serial Number: 09/298,625 filed on April 23, 1999.

Consideration of this Information Disclosure Statement is respectfully requested, since the art provided may be material to the examination of the present application as defined under 37 C.F.R. §1.56.

Inasmuch as this Information Disclosure Statement is being mailed prior to the issuance of a first Official Action, no fee or certification is required.

Respectfully submitted,



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